

REMARKS/ARGUMENTS

Claims 1-21 are pending in the application. No claims are allowed. Claims 22-23 were canceled without prejudice to subsequent revival. Claims 1 and 12 have been amended. Entry of the amendment, reconsideration of the rejection, and allowance of claims 1-21 are requested.

Applicants gratefully acknowledge the withdrawal of the prior art rejections.

The Amendment

In order to expedite prosecution of the application and advance the case toward allowance, the claims have been amended. No new matter was introduced by this amendment.

Claims 1 and 12 have been amended to clarify that the method includes a step of "growing the VERO cells in a serum free cell culture" and that the cells are infected with HAV at "a reduced temperature compared to the step of growing the cells". Support for this amendment can be found on page 6, paragraph [018].

Claims 1 and 12 have also been amended to clarify that HAV is continuously released into the cell culture medium "because" infected cells release at least 50% of viral antigen into the medium. Support for this amendment can be found on page 6, paragraph [017], last 2 lines and page 14, paragraph [044]. Claim 12 has been further amended to clarify that complete HAV particles are isolated from the HAV harvest. Support for this amendment can be found on page 9, paragraph [030], last line.

Rejection Under 35 U.S.C. §112

Claims 1-21 have been newly rejected under 35 U.S.C. §112, first paragraph for allegedly failing to comply with the written description requirement.

The office action indicates that the specification does not teach a method wherein the reduction of temperature takes place after infection. It is further stated that claims 1, 12 and 13 indicate that the reduction in temperature occurs after post-infection while the specification at paragraph [018] teaches that the reduction in temperature occurs prior to infection.

The rejection is respectfully traversed.

As the Examiner is certainly aware, an objective standard for determining compliance with the written description requirement is "does the description clearly allow persons of ordinary skill in the art to *recognize* that he or she invented what is claimed."¹ [emphasis added]

First, it must be clarified that the claims do not specify at what time the reduction in temperature occurs, the claims simply state that the cells are incubated at reduced temperature which is supported in the specification. The method steps are not restricted to any particular sequential order. Second, the claims have been amended to state that "the cells are infected with HAV at a reduced temperature compared to the step of growing the cells" in order to further define the method and specify that reduction in temperature occurs prior to or at the time of infection. This amendment finds support on page 6, paragraph [018], wherein it is disclosed that the cells are grown under serum free conditions and that prior to infection with HAV the cell culture temperature is reduced. Further support is provided on page 11, paragraph [038], wherein it is shown that VERO cells are inoculated into a tank fermenter and are first grown at 37°C after which a virus suspension of HAV (on the second day after inoculation) is pumped into the fermenter at either 34°C or 37°C. Thus, the claims find support in the specification for their full scope and the skilled artisan would have no difficulty in recognizing what is claimed.

It is stated for the record that the amendment was entered to advance the case toward allowance and must not be construed as an acquiescence in the rejection.

In light of the amendment and remarks, Applicants respectfully request that the rejection of claims 1-21 under 35 U.S.C. §112, first paragraph, be withdrawn.

Claims 1-21 have been newly rejected under 35 U.S.C. §112, second paragraph for allegedly being indefinite.

The office action indicates that claims 1 and 12 recite the limitation "reduced temperature" which lacks comparative basis and that the claims should indicate what temperature the reduction is being compared to.

¹ *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989).

Claims 1 and 12 have been amended to clarify that the method includes a step of "growing the VERO cells in a serum free cell culture" and that the cells are infected with HAV at "a reduced temperature compared to the step of growing the cells" (*supra*). As such, the amendment establishes a comparative basis with respect to temperature, as requested by the Examiner. It follows that the skilled artisan would easily understand what is meant by *reduced temperature* in context of the application. In light of this amendment, the rejection should be withdrawn.

The office action indicates that claims 1 and 12 recite that HAV is continuously released into the cell culture medium and infected cells release at least 50% of viral antigen into the cell supernatant; and that it is not clear what the difference is between the continuous release of HAV into the medium and the release of HAV from infected cells into the supernatant. The office action also indicates that the claims as amended infer that only virus from infected cells into the supernatant is harvested, however, it seems that virus released into the cell culture would also be harvested. Clarification is requested by the Examiner.

Claims 1 and 12 have been amended in order to specifically clarify that HAV is continuously released into the cell culture medium "because" infected cells release at least 50% of viral antigen into the medium. Support for this amendment can be found on page 6, paragraph [017], wherein it is indicated that HAV is continuously released into the cell culture medium. The specification also states that the cells grown at 34°C in serum free medium continuously released viral antigen into the cell culture supernatant (see page 12, paragraph [040]), leading to a higher antigen titer in the supernatant (see Table 2) compared to the cell pellet. The supernatant is the cell free portion of the medium. Thus, the Examiner is correct in assuming that virus released into the cell culture medium is harvested. This is particularly true since the virus released into the cell culture medium is essentially virus released by the VERO cells. In light of the amendment and clarification, it is requested that the rejection be withdrawn.

The office action indicates that claims 3 and 13 recite the limitation "said reduced temperature is about 34°C prior to infection" and that claims 1 and 12, from which claims 3 and 13 depend, respectively, are drawn to a method wherein the reduction of temperature occurs post-infection. It is respectfully clarified that claim 13 states that the cells are grown at 37°C

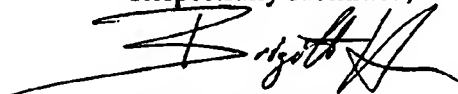
prior to infection. Further, claims 1 and 12 have been amended to clarify that the reduction in temperature occurs prior to or at the time of infection (*supra*). Thus, this rejection should be withdrawn.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,



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